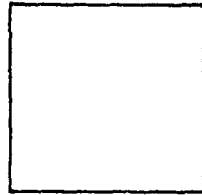


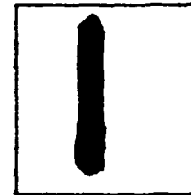
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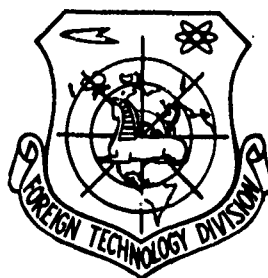
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ECONOMICS AND MILITARY-TECHNICAL POLICY

By

M. Gladkov, B. Ivanov



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А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	"
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

*ye initially, after vowels, and after Ъ, ь; e elsewhere.
When written as ё in Russian, transliterate as yë or ë.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	sinh ⁻¹
cos	cos	ch	cosh	arc ch	cosh ⁻¹
tg	tan	th	tanh	arc th	tanh ⁻¹
ctg	cot	cth	coth	arc cth	coth ⁻¹
sec	sec	sch	sech	arc sch	sech ⁻¹
cosec	csc	csch	csch	arc csch	csch ⁻¹

Russian	English
rot	curl
lg	log

ECONOMICS AND MILITARY-TECHNICAL POLICY¹

Colonel M. Gladkov, Candidate of Technical Sciences B. Ivanov

The Soviet government has to be concerned with the fact that in a number of imperialist countries the buildup of armament is being continued. Forces of aggression and militarism direct colossal material resources at the intensification and without the enormous military machine and at the conducting of wars, and they aim their keen strategy first of all against the countries of socialism.

The provision for the necessary level of military power of the Soviet country requires considerable economic resources. Acquiring importance in connection with this is the problem of the relationship of the material-technical needs of defense and economic possibilities of their satisfaction. The solution to the given problem in many respects depends on the contents and economic validity of the military-technical policy of the government.

* * *

In general form, the military-technical policy is a direction of activity of the government in the field of development of armament and combat technique. More specifically, it is the

¹It is recommended to use the article in the study by officers on Marxist-Leninist training, "Economic basis of military-technical policy, . Economic work in the everyday life and activity of the troops."

totality of the planned and carried out (by the state) measures on the development, production and accumulation of weapons of war used for the equipping of the armed forces in conformity with the military doctrine and the social-economic conditions of the country.

The development and implementation of the military-technical politics are proposed by the careful study and calculation of the many factors of external and internal order: the foreign political situation, real possibilities of a probable enemy, nature of the future war, achieved level and prospects of development of military affairs, economic, moral-political and scientific-technical potential of the government. The essence and main features of the military-technical policy are determined by the class nature of the state and by goals which it serves.

The aggressive nature of imperialism conditions the military-strategic directivity and the basis of development of the material components of the armed forces of the imperialist military groupings and the content and specificity of the military-technical policy of each of the governments forming them. In the modern stage three main features of this policy are clearly distinguished. First, the increasing race for the armament. In speeding it up, imperialism, as was noted by the International Conference of Communist and Working Parties in 1969, is planning the production of new armament for the decade ahead. Secondly, the use of achievements of scientific-technical progress is predominantly for military purposes. Thirdly, the reaction, antipopulation directivity of the policy is apparent, which stands as a threat to the death of the people.

The armament race in the USA has acquired the most dangerous dimensions. In its military-technical policy the American imperialism gives preference to the development of means of attack. According to data of the foreign press, in the USA there are 1000 launchers of strategic missiles, 41 atomic missile submarines, 500 strategic bombers, and a considerable number of missile-carrying tactical aircraft. Large reserves of atomic means of attack have been accumulated.

The military-technical policy of socialist states has a fundamentally different social-economic and military-strategic bases. The nature and directivity of it are determined by the need for protection of socialism from aggression.

The basic principles of the military-technical policy of the USSR were worked out by V.I. Lenin. Subsequently, they received further development in the theoretical and practical activity of the CPSU on the strengthening of the defense capability of the USSR. An especially great deal of attention has been given to questions of the military-technical policy in the Program of the Party, Materials of the XXIII and XXIV Congresses of the CPSU and other Party documents.

The military-technical politics of our state pursues noble goals for the protection of the socialist homeland. Proceeding from the foreign, economic, technical, and defense policy of the Communist Party, it is called upon with an account of the scientifically based prospects of the development of material weapons of war to provide the equipping of the Armed Forces by modern weaponry and combat technique.

The CPSU considers the main goal of its foreign-political activity as the provision of world conditions for the construction of communism in the USSR and the development of a world system of socialism. The essence of the contemporary economic policy, developed by the XXIV Party Congress, consists in a more profound ^{of economics} turn toward the solution of the varied problems connected with the increase in the welfare of the people based on the growing economic potential, high rates of development of socialist production, increase in its efficiency, scientific and technical progress and acceleration of the growth in the labor productivity.

The defense policy of the CPSU is directed at the maintaining of a constant readiness of the people and army to repulse the aggression of reactionary forces of imperialism.

A comprehensive account of all the factors of strengthening the safety of the homeland imparts specific features to those principles on which the military-technical policy of the Soviet government is based. In the first place, inherent to it is the

principle of the conformity of the military-technical potential of the country to the volume and structure of the needs in material means of defense. In the socialist structure the objective economic stimulations for the armament race are absent. The production of armament means is determined only by external factors. In the Summary Report of the CC of CPSU to the XXIV Party Congress it is indicated that further development of the defense industry and the specific programs of its activity in many respects will depend on the international situation.

Secondly, the military-technical policy bears a profoundly international character. It envisages the rendering of comprehensive help to countries of the socialist commonwealth in the strengthening of their defense power and in the support of the national-liberation movement and just wars of the peoples being subjected to aggression.

The internationalism of the Soviet military-technical policy is rooted in the nature of the multinational socialist state. As it is indicated in the Decree of the CC of the CPSU, "On the Preparation of the 50th Anniversary of the Formation of the Union of Soviet Socialist Republics," one of the reasons which imperatively required the union of the Soviet republics into one union state was the need to provide for external safety and protection from the intrigue of the universal bourgeoisie.

A clear expression of the internationalism of the military-technical policy of the CPSU is its activity on the maintaining of the necessary nuclear missile power of the USSR. The Party considers it as the material basis of the military might of the whole socialist commonwealth. Therefore, each of the socialist countries construct their own defense in the design for nuclear power of the USSR and for the close collaboration and mutual help in the development and carrying out of the military-technical policy. The military-technical policy of the organization of the Warsaw Pact is constructed on principles of the coordinated account of the social-economic, political, historical, military, and other factors which affect the prospects of the development of means of armed combat.

Thirdly, the military-technical policy of the socialist state is scientific. It is called upon to provide materially a destructive response strike in the case of an imperialistic aggression no matter what means the aggressor used: nuclear missile or conventional. The basic principle of the scientific approach to the development of the military-technical policy is the position of the classics of Marxism-Leninism on the determining effect of economics on the military power of the state and the course and outcome of the war.

Our epoch is the epoch of the transition from capitalism to socialism and communism, an epoch of the struggle of two opposite world systems. The feature of its modern stage lies in the fact that the forces of socialism determine the course of historic development, and imperialism lost the dominant position on the world arena. The USSR now represents a powerful support in an economic and military respect. The scientific and technical revolution now occurring significantly affects the development of the military affairs. Under these conditions the military-technical policy of the CPSU is directed at the creation and maintaining of the military superiority of the socialist countries over forces of war and aggression.

The scientific approach to the solution to problems of the development of the material means of military protection of socialism is senseless without an account of the originality of modern stage of the contemporary epoch, the achieved level of the productive forces, the state of science and technology, the relationship of the economic potentials of opposite social systems, and trends in military affairs. Therefore, it is especially important not only to determine correctly, but also economically substantiate the military-technical policy of the Soviet state.

The economic substantiation of the military-technical policy is essentially the finding of the optimal correspondence between the volume of growing needs of the state in military technology and dimensions of the financial, material and industrial resources which can be diverted for the covering of these needs. This substantiation includes the following: determination of the volume,

structure and dynamics of the military-technical needs; the finding of sources of covering of the economic expenses of the military-technical development; the appearance of possibilities of the increase in the efficiency of expenditures for military technology, which is equivalent to the satisfaction of the needs of the state in military technology with increased combat means at the least expenses for its creation, storage and use.

The problem of the economic substantiation of the military-technical policy of the state covers the whole complex process of the interconnection between the economics and production of military technology.

* * *

The content and direction of the development of weaponry and combat materiel, just as in the past, in the end result is under a determining effect of the economic interests of the struggling classes. The forces of war and aggression, which are now operating especially active in the USA and certain other countries of imperialism, turn their main scientific achievements toward preparation of new world war, thus making science a servant of aggression.

The most recent scientific discoveries (intranuclear energy, cybernetics, radar, electronics, and propulsion) have materialized in the modern weaponry of war. First of all, embodied in them are the profound qualitative changes which occur in economics under the effect of the scientific and technical revolution.

The military-technical revolution radically changed the material base of the modern armies, which are characterized by the unprecedented (by force of destruction) combat means, the acceleration of the moral deterioration of the military technology, the mechanization and automation of the military labor, and the complexity of armament systems. If in his time F. Engels called an armor-clad battleship a "floating factory," an enormous machine, the control of which was made by a branch of large industry of that time, then now this evaluation can be extended to all the basic forms of the nuclear missile, aviation, anti-aircraft, and marine armament.

The indicated features of the military-technical revolution formulate the economic needs of the modern war. To equip the

armies with means of armed combat, the economic resources which are large in volume, complex in structure and the most valuable in quality are necessary. Therefore, the interconnection between military technology and economics is reinforced from year to year.

The mass use of modern means of armed combat has an opposite effect on the economics; quantitatively and qualitatively new requirements are presented to it. Now the intensification of the economic intensity of the wars predominantly due to the growth in expenditures for military technology is regular. According to foreign sources, for the last 100-year period the portion of the expenditures for the technical provision of the forces was increased from one-tenth (in countries of Europe of the 1870's) to seven-tenths (at present in the USA and West Germany) of the total sum of finances allotted for the upkeep of the armies. The absolute values of the indicated percentages were increased by tens and, in some cases, hundreds of times. The reasons are the increase in the degree of mechanization of the armies, the growth in the power supply per production unit, and also the complication and, consequently, the rise in cost of the military technology. If during the First World War, on the average, there were 0.3-2 horsepower of motors for one soldier, then in the Second World War the motors are 20 horsepower. The increase in the expenditures occurred mainly due to the equipping of forces of armored tank technology. The tank armament of the forces continues to be intensified.

The process of the complication and increase in price of the technology is associated with its mass modernization and the dissemination of fundamentally new armaments of war (nuclear weaponry and technical means of its application - missiles, jet aircraft, atomic submarines, systems of long-range target detection, and automatic fire control). And this requires the continuous improvement and expansion of the scientific-research and experimental-design works (NIOKR). The expenditures for these works in the cost of the strategic bomber of the USA, the B-1, (now in the stage of development), for example, according to foreign sources, consist of more than 27 percent and in intercontinental

missiles reach even 60 percent. Of each 100 dollars expended by the government of the USA for the acquiring of military production, 54 dollars go for scientific investigations, whereas in other branches of production this amounts to 7.5 dollars.

The electronization of combat materiel is occurring. According to data of the foreign press, in the missile complexes, let us say that the expenditures for electronics are 50-80% of the total expenses for their manufacture. Even in the price of tanks of new models (from data of the West German press), these expenditures approach 40%.

The cost of nuclear missile armament is immeasurably higher than the cost of conventional materiel. More than 118 billion dollars have been expended in 20 years in the USA for the accumulation of a reserve of nuclear warheads and means of their delivery. This sum would be sufficient for the armament of 107 infantry or 65 tank divisions.

The rushing flow of military-technical discoveries realized for the armament of the modern armies diverted into the sphere of military preparations a whole number of branches of economics: aviation, atomic, electronic, ship building, and chemical. In the imperialistic countries these branches are by preference militarized (from 50 to 95% of their production is produced in the USA, for example, on orders of the Pentagon, Atom Energy Commission or Space Administration).

The defensive policy of the USSR, considering the international situation, trends of development of production, science and technology, and profound changes in military affairs, provides the army and navy with weaponry which, according to the appraisal of Marshal of the Soviet Union, A.A. Grechko, "embodies in itself the recent most promising scientific and technical discoveries from a military viewpoint.

The output of the modern combat materiel changes the whole appearance of the military-industrial production. The complexity, design independence and heterogeneity of the completing articles of systems of weaponry impart a complex character to their manufacturing process. Needed now for the creation of the many

technical means of war are the ^{well} developed specialization (branch, territorial, subject, and detailed) and cooperation. In the individual countries of imperialism this requirement is carried out through the military-industrial complexes, in which there is formed a chain of contract-agreement bonds based on definite programs of the regulating centers.

The military production is disseminated over all the industry and the whole territory. In the USA only the primary contractors operate in 76 branches. Five thousand cities extend to the sphere of deliveries of the weaponry. Together with this, the high cost of the main goods of military designation causes a trend toward the intensifying of their production dictated by the uncurbed craving for profit of the industrialists of death. In the USA, for example, only 100 of the largest monopolies cover almost 70% of the primary orders of the defense department. The concentration of production is also conditioned by considerations of secrecy.

Modern military-technical development requires not only an enormous means but also the presence of a powerful scientific and technical and industrial complex, constantly being maintained at a high level of military production and readiness of the economic potential for the rapid changeover to the needs of war.

Expenditures for weaponry and military materiel are nonproductive expenses, since the objects of armament neither in nature nor in cost can be used in the reproduction of the social product. The means allotted for these purposes are a direct deduction from the national income.

The intensity in international relations caused by the aggressive policy of imperialism and, proceeding from it, the threat of unleashing a world war induce the peace-loving nations to accumulate reserves of military materiel, which, naturally, leads to the reduction of material resources used for the satisfying of the economic, social and cultural needs of society. Limits of the development of the military materiel are included in this contradiction.

The problem of the economic substantiation of the military-technical policy proposes the provision of the possibility of the

satisfaction of the needs of the government in weapons of war with such economic expenses which do not impose excessive burden on the economic organism. The system of capitalism as a whole does not allow resolving this problem completely. Government measures of any kind, which were conducted, let us say, in the USA for the purpose of the savings of expenditures for military materiel, have only a partial character. How, for example, is it possible to balance the military-technical needs and economic possibilities of the country if the economic activity is subordinated to interests of large capital, and if it is regulated by the law of monopolistic profit and competitive struggle?

The economic organization of socialism, as the experience of the Great Patriotic War showed, allows even with relatively lower production-technical potential providing superiority in material means of armed combat over the aggressive forces of imperialism.

Socialist production is carried out, first of all, in the name of the most complete satisfaction of the material and cultural needs of the workers. The interest in society consists in the fact that in order to maintain a reliable safety with a minimal diverting of means from the national economy. The planned administration of the socialist economy on a scientific basis makes it possible to provide materially a military-technical policy, not disrupting the balance and harmonicity of the national economy.

The economic basis of the military-technical policy consists of the integral link of the economic-political activity of the CPSU. Based on the scientific conclusions and an estimate of the prospects of the social development, the Party determines the interconnections between the economics and military technology and plans ways and methods of the complex solution to the economic, social and defense problems. This has been vividly expressed in documents of the XXIV Congress of the CPSU. In the content of the economic policy developed by the congress, the military-technical side is clearly distinguished. Belonging here are: the organic joining of achievements of the scientific and technical revolution with preferences of the socialist system of economy,

the retaining of the high rates of development of heavy industry, and the mass renewal of industrial funds. Thus by the end of the current five-year plan the portion of new production funds is 46% in industry and 60% in agriculture. The functions of the defense industry are made concrete. Together with the provision of needs of the country in means of defense, it is called upon to expand the output of the objects of national use (already now 42% of its production goes for the satisfying of civil needs). Its scientific and technical experience will be used in all spheres of the national economy.

In the contemporary stage of development of our society, raised to a qualitatively new stage is the carrying out of the Leninist principle of the economy of socialist management and the observance of the strictest conditions of economy. The matters of the defense of the country, wrote V.I. Lenin, "persistently requires the greatest economy of the forces and the most productive use of the national labor" (Complete Collected Works, Vol. 37, page 367).

The creation, distribution and use of the military technology form a single economic process which occurs both beyond the limits of and within the Armed Forces. A large number of objects of military designation are found on the balance of the forces.

Necessary for the fulfillment of the basic functions of our army and navy is the economic activity connected with the acquisition, transporting, maintenance, and operation of the weaponry and military materiel and with the construction of technical structures and the storage of military property. In some cases the production is continued here (in the sphere of the material-technical supply, at warehouses, in arsenals, and at bases, firing grounds, in experimental plants and laboratories, and research centers), and in others only the distribution and use are carried out.

The military use has considerable characteristics. For the greater part it is organized according to the type of a large machine industry, the models of which are the many modern objects of armament. Here there occurs the expenditure of the embodied

and live labor both in the form of the noneconomic use of objects of armament and military-technical supply created in the national economy and in the form of expenses of consumption, that is, the expenditures of the material, finance and labor resources for the organization of the provision of life and operations of the troops.

The distinguishing feature of the military consumption is determined by the content and direction of the economic work in the forces. In reference to the armies of socialist states, understood by the economic work of the forces is the activity of the commanders, staffs, elements of the rear, and troop collectives connected with the movement of resources allotted for defense.

It is based on the Leninist principles of socialist management, among which for the army the most important is the principle of the economic nature of the defensive readiness. Lenin said that under conditions of a threat of the imperialist aggression, in favor of the army we make the "certain heavy sacrifices, of course, strictly determining the dimensions of these sacrifices" (Complete Collected Works, Vol. 45, page 112), which in peace time the military organization must not be too burdensome for the national economy. The economic work in the forces also assumes the observation of the general requirement of the Party for economic activity, namely: the care for the needs of the consumer and the economy of social labor. Its correct organization denotes the subordination of interests of the departments to the general state interests.

The main trend in the economic work in the forces is the increase in efficiency of the defense expenditures, i.e., the achievement of a high level of combat readiness with the least economic expenses. Their efficiency is realized in the combat readiness of the troops, which is a crown of the combat skill of the forces in peace time and a key to the victory in war. An increase in the efficiency of the monetary and material resources expended for the army is expressed in the lowering of the expenditures per unit of final result of its functioning, consequently, in the releasing of means which, depending on the situation, can

be converted to the intensification of the defensive power or to the development of the economics.

Two sides are distinguished in the content of the economic work in the forces. First, this is a planned organization of the army economic organism which is based on the strong theoretical foundation of the economic and military sciences. Secondly, this is the economic basis of the taken solutions, i.e., the selection of the optimal variant of their carrying out not only according to the military and theoretical but also the economic considerations. In one of the directives of V.I. Lenin it was ordered, for example, in the transport of a division, "to develop the most economic method." Now such an approach has acquired the character of a general principle. But the Leninist instruction did not lose the direct meaning, which concerns the complex use of the transport. According to foreign data, the movement, let us say, of a tank battalion 500 kilometers by its own power is eleven times more expensive than it is by railroad.

The Leninist idea of economic substantiation of the solutions became part of our life in the practice of economic administration. It was reflected in the development of the Soviet military science, in the number of problems of which there is the problem of the development of the most effective methods of the use of forces and means in a battle, operation and war as a whole.

The modern state and prospects of the development of technology, economics and military affairs dictate the need of further improvement of the economic work in the forces. This ensues from the requirement of the XXIV Congress of the CPSU to seriously raise the level of all economic work. On the path of the solution to this problem among the many problems, the Party congress advanced a leading plan for the comprehensive development of economic science and the economic formation of cadres and all the workers.

The economic preparation is examined by the Party as an obligatory important side of the qualification of each worker. In the army and navy this requirement belongs, first of all, to the officer's cadres. In order to raise the quality of the economic

work of the command, technical and economic personnel, it is necessary to outfit them with the knowledge of the bases of the military economics, the method of the economic analysis and economic planning, the specific economics corresponding to the profile of the military activity, theory and practice of the economic administration taking the characteristics of the armed forces into account.

Economic knowledge is necessary to all military men. It is necessary as a theoretical basis of their economic training and the shaping in them of a socialist attitude for the military belongings, which is the national property, and the development of skills for observing the strictest conditions of savings in the use of material and financial resources. In the decree of the CC of the CPSU, "On the improvement of the economic education of the workers," it is indicated that the economic education of the workers should be closely tied in with the organization of all the economic work at the enterprises and further the increase in the level of the management. From this it follows that the economic training in the forces must be constructed taking the specific nature of the military economy into account. Subordinated to the problems of the maintaining of the high combat readiness, the economic training is called upon to develop creative activity of the military men in the struggle for an increase in the efficiency of the means allotted for the armament, outfitting and upkeep of the forces.

The scientific approach to the problems of the organization of the military-economic activity of the forces is one of the important factors of the successful solution to the problem of the economic substantiation of the military-technical policy of the socialist state. It opens up the possibility of maintaining the conformity between the needs of the army in material means of a reliable defense of the country and the volume of economic resources, which the national economy can divide for their satisfaction.

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